

regards as the invention. Specifically, the Examiner argues that the phrase "hierarchical attribute value pair data structure" is unclear. Applicants respectfully traverse the rejection for at least the following reasons.

The phrase "hierarchical attribute value pair data structure" is expressly introduced on page 27, line 10, and various examples of such data structures are given throughout the specification. An illustrative and non-limiting example of a logical structure called a "donut" for implementing user-profile information is shown in Figure 10. A donut is an hierarchical attribute value pair data structure which includes a collection of crumbs. A donut table 206 maintains user-profile information for a particular user, and may include an associated crumb table 212 which in turn may include an associated attribute table 210. The attribute value pair is realized in the crumb table 212, which is used for identifying and maintaining particular attributes for the user profile information, and in the attribute table 210, which stores and maintains the information for those attributes. The donut table 206 is also associated with a donut hierarchy table 208, which identifies and maintains hierarchical relationships for the donuts. See page 27, line 10 through page 29, line 1. Tables 2 and 3 beginning on page 36 show code listings for an exemplary donut (showing attribute value pairs such as email and barf@fox.net on page 36, line 26) and donut hierarchy, respectively.

general to
Specific

An example of how donuts are used appears on page 35, line 21 through page 36, line 14. Accordingly, Applicants believe that the phrase "hierarchical attribute value pair data structure" is clearly defined in the specification, and respectfully request the Examiner to reconsider and withdraw the rejection of claim 1 under 35 U.S.C. § 112.

Rejection Under 35 U.S.C. §103

The Examiner has rejected claims 1-148 under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,878,223 issued to Becker et al. (the "Becker reference") in view of United States Patent No. 6,012,083 issued to Savitzky et al. (the "Savitzky reference"). Applicants respectfully traverse the rejection for at least the following reasons.

Claims 1-141 each require a "hierarchical attribute value pair data structure." The hierarchical attribute value pair data structure is quite different from other data structures, as is apparent from the many advantages relative to other data structures. The specification of the present invention discloses that the hierarchical attribute value pair data structure provides

many advantages over other known data structures. In the hierarchical attribute value pair data structure, for example, the attribute value pair is independent of the hierarchical structure. This allows for sharing one or more value pairs without having to share the entire hierarchy. Thus, the individual value pairs may be shared by different data structure hierarchies to define different entities, e.g., an individual or a group of individuals sharing the same piece of information such as identifying members of the same chat room. Further, the claimed data structure allows for sharing attributes for different services without requiring a user to enter a new profile for using different services. See e.g., page 28, lines 1-6. Further, individual value pairs may be shared without having to share the entire hierarchy in order to determine content to send to a user. For example, certain information from a user-profile, such as a name and address of a user, may be provided, while other information not necessary for the determination, such as credit card information, may be withheld if it is not necessary for the determination.

The Examiner has not provided any indication that either the Becker reference or the Savitzky reference disclose, teach, or suggest the use of a hierarchical attribute value pair data structure as required by claims 1-141. Thus, the Examiner has not shown that the Becker reference and the Savitzky reference, even if combined, do not disclose, teach, or suggest every element of the claimed invention. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of claims 1-141, and to allow claims 1-141.

No Additional Fee Required

Since this response is being filed within three months of the date of the mailing of the Office action, Applicants believe no fee is due. If a fee is determined to be due, however, please charge deposit account number 04-1415. Further, if a petition is required, please consider this a petition therefore.

CONCLUSION

In view of the preceding remarks, reconsideration and allowance of all pending claims are respectfully requested. If any points remain at issue, which the Examiner feels could best be resolved by telephone interview, he is urged to contact the attorney below.

Dated this 6th day of April, 2002.

Respectfully submitted,



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